

10/526033

DT01 Rec'd PCT/PTC 28 FEB 2005

The following documents are references:

D1: GB - A - 2 309 108

D2: US - A - 5 598 032

D3: EP - A - 1 143 379

D4: JP 2002 23 69 01

D5: US - A - 6 111 303

International search report

D6: JP 2002 27 93 77

Publication date 27.09.2002; PCT rule  
64.3

Documents D1, D2, D3, D4 and D6 were not mentioned in the international search report. Copies of these documents are attached in the appendix.

**Concerning point V**

novelty, inventive activity: quotations/explanations (clause 33 (2, 3) PCT; rule 66.2 a ii PCT)

1. This invention relates to a smart card with a known passive antenna described in D1 and D2.

Consequently, the problem that arises is that the antennas of these cards only have a limited range. The solution proposed in this invention is to communicate with the smart card by coupling surface pins of the card with an antenna of an auxiliary equipment. The smart card can then use the antenna of the auxiliary equipment for contactless communication with other equipment (page 6, lines 18 - 22). This external antenna may be larger than an antenna integrated in the card, so that the communication range can be increased.

This fundamental concept of the application (the antenna is in an external equipment rather than in the card) is not clearly defined in the claims.

2. Prior art D1 divulges a smart card (D1, Fig. 1 and 2, No. 1) with a chip (No. 2) equipped with at least two surface pins (No. 8 and 8') and a processing module (in chip No. 2), characterised in that it also comprises a radio frequency interface associated with the processing module (in chip No. 2) and connected to the two surface pins (page 5, lines 5 - 11).

D2 also shows a smart card (D2, title) with a chip provided with at least two surface pins (D2, Fig. 8, No. 11) and a processing module. It also comprises a

radio frequency interface associated with the processing module and connected to the two surface pins (Fig. 8 and 9, No. 24, column 4, lines 6 - 10).

A smart card with ISO surface pins electrically coupled to an antenna is also known in D3 (see Figures) and D4 (Fig. 5).

Therefore the purpose of **claim 3** is not new.

3. D2 describes an equipment with an antenna (D2, No. 5) and a coupling interface (Fig. 8 and 9, No. 24) that could be coupled to a smart card, characterised in that the coupling interface has two pins (No. 24) that could be coupled to surface pins (No. 11) or a so-called smart card (see title) and the pins of the equipment are connected to the antenna (Fig. 9, No. 24, column 4, lines 6 - 10).

Consequently, **claim 7** is not new.

4. D2 also describes a communication process including the following steps:
  - supply of an equipment (Fig. 8, 9) provided with at least one antenna (No. 5) and at least two pins (No. 11, 12) connected to the antenna;
  - supply of a smart card (title, see Fig. 1) with a chip provided with at least two surface pins (No. 10, 11), a processing module (No. 8), a radio-frequency interface associated with the processing module and connected to the surface pins of the card, the surface pins of the card being coupled to equipment pins (Col. 4, line 2),
  - transmission of electrical signals between the surface pins of the card and the antenna (col. 4, lines 1-10).

Therefore claim 1 is not new.

5. The characteristics of **claims 2, 4, 5, 6, 14 and 15** are already used for the same purpose in D3 and D4.
6. The other claims only define characteristics that in practice are well known to those skilled in the art and therefore cannot claim to contribute to an invention activity.
7. It is suggested that each independent claim should include a statement to define that an ISO 7816 card should be inserted into an external equipment and that this card should use the antenna of the external equipment. Without such a definition, it could also be said in D5 that a smart card (Fig. 1, ref. 9 that is not

an ISO card) is inserted in an external equipment (ref. 1) provided with an antenna (ref. 4) used by the card.

- 8 The fundamental concept of the invention is known in D6 (PCT rule 64.3, 70.10).

Other comments

**Irregularities in the international application (PCT rules 5-7).**

- 9 Documents D1, D2, D3, D4, D5, D6 are not mentioned in the description (PCT rule 5.1 a ii)
10. Independent claim 1 is not presented in two parts (PCT rule 6.3 b).